

What is claimed is:

[Claim 1] 1. A combustor liner for a gas turbine comprising:

a body having a plurality of angled strips on an outside surface of said combustor liner and arranged in an array about said outside surface; and
a space between each of said plurality of angled strips so as to create vortices in a cooling air flowing in a longitudinal direction across said outside surface of said combustor liner.

[Claim 2] 2. The combustor liner of claim 1, wherein each of said angled strips has a V-shape.

[Claim 3] 3. The combustor liner of claim 1, wherein each of said angled strips has a V-shape and a base of said V-shape is removed.

[Claim 4] 4. The combustor liner of claim 1, wherein each of said angled strips has a V-shape and a base of said V-shape is removed so as to create a first side and a second side, said first side is offset longitudinally from said second side.

[Claim 5] 5. The combustor liner of claim 4, wherein said first side is offset from said second side by about 0.3 to about 0.7 of a total longitudinal distance between each of said angled strips.

[Claim 6] 6. The combustor liner of claim 4, wherein said space includes said base that has been removed of said V-shape, a lateral space disposed between each of said V-shape, and a longitudinal space between each of said angled strips.

[Claim 7] 7. The combustor liner of claim 6, wherein said base that has been removed of said V-shape has a dimension that is the same as said lateral space.

[Claim 8] 8. The combustor liner of claim 1, wherein each of said plurality of angled strips has a flat top.

[Claim 9] 9. The combustor liner of claim 1, wherein each of said plurality of angled strips has a bottom section, which transitions to said outside surface through a radiused fillet.

[Claim 10] 10. The combustor liner of claim 1, wherein each of said plurality of angled strips has a height of about 0.02 inches to about 0.12 inches.

[Claim 11] 11. The combustor liner of claim 1, wherein said space includes a longitudinal space and a lateral space, said longitudinal space between each of said angled strips is defined by a ratio of said lateral space between each of said angled strips to a height of each of said angled strips, said ratio ranges from approximately 6 to approximately 14.

[Claim 12] 12. The combustor liner of claim 11, wherein said lateral space is defined by about five to about ten times a height of each of said angled strip.

[Claim 13] 13. The combustor liner of claim 1, wherein each of said angled strips has an angle from a horizontal direction, said angle ranges from about 30° to about 60°.

[Claim 14] 14. The combustor liner of claim 1, wherein said body is enclosed within a flow sleeve, said cooling air flows between said flow sleeve and said body.

[Claim 15] 15. The combustor liner of claim 1, wherein said plurality of angled strips are formed by disposing said plurality of angled strips on said outside surface.

[Claim 16] 16. The combustor liner of claim 1, wherein said plurality of angled strips are formed by integrating said plurality of angled strips with said outside surface.

[Claim 17] 17. A method of fabricating a combustor liner, the method comprising:

forming a plurality of angled strips on an outside surface of said combustor liner and arranged in an array about said outside surface, each of said strips disposed so as to be spaced apart to create vortices in a cooling air flowing across said outside surface of said combustor liner.

[Claim 18] 18. The method of claim 17, wherein said forming includes integrating said plurality of strips on said outside liner.

[Claim 19] 19. The method of claim 17, wherein said forming includes disposing said plurality of strips on said outside liner.